



## The environment-pathogen-host axis in communicable and non-communicable diseases: Recent advances in experimental and clinical research

**Author(s):** Gilles S, Traidl-Hoffmann C  
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### Abstract:

Allergies and autoimmune diseases are spreading worldwide. Control of infections, on the other hand, remains an issue, even in the post-antibiotic era. Chronic or poorly controlled infections occur in immune compromised individuals such as HIV patients, hospitalized patients exposed to multi-resistant bacteria, or patients on immunosuppressive treatment. They may become an even more emerging issue in an ageing population. At the same time, profound environmental changes such as global warming, urbanization, increasing environmental pollution and novel food engineering technologies may alter the abundance or aggressiveness of allergens/allergen carriers in our environment. Likewise, changes in dietary habits - and possibly also use of antibiotics - have an impact on the composition of our natural microbial flora in the gut, airways and skin, which may alter susceptibility for common diseases, among them allergies, asthma and atopic eczema. At the recently founded Institute of Environmental Medicine of the Technische Universität Munich, located in Augsburg at the UNIKA-T, experimental, clinical and translational research is focused on the complex interactions of environment, pathogen and host in expression or control of communicable and non-communicable diseases. We present our research concept and recent findings in environment - host interactions.

**Source:** <http://dx.doi.org/10.1111/ddg.12345>

### Resource Description

#### Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution

**Air Pollution:** Allergens

#### Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

# Climate Change and Human Health Literature Portal

## **Geographic Location:**

resource focuses on specific location

Global or Unspecified

## **Health Impact:**

specification of health effect or disease related to climate change exposure

Dermatological Effect, Respiratory Effect, Other Health Impact

**Respiratory Effect:** Asthma, Upper Respiratory Allergy

**Other Health Impact:** Allergic disease ;autoimmune disease

## **Resource Type:**

format or standard characteristic of resource

Review

## **Timescale:**

time period studied

Time Scale Unspecified